

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P237531

Luminaire Tested: **CTN-8-6-D-E1-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237531
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-6-D-E1-T3-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 56444 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B4 - U0 - G5

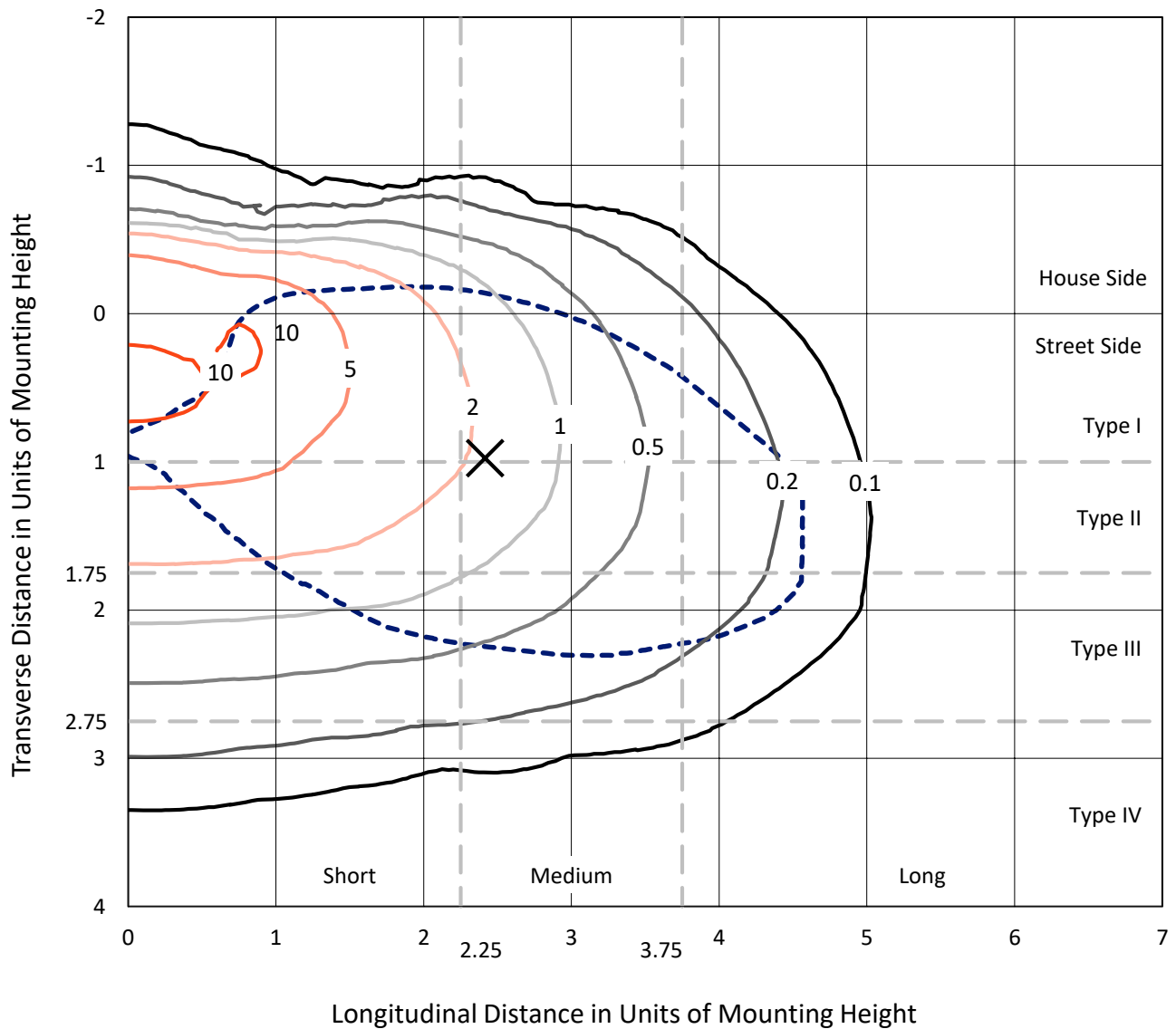
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

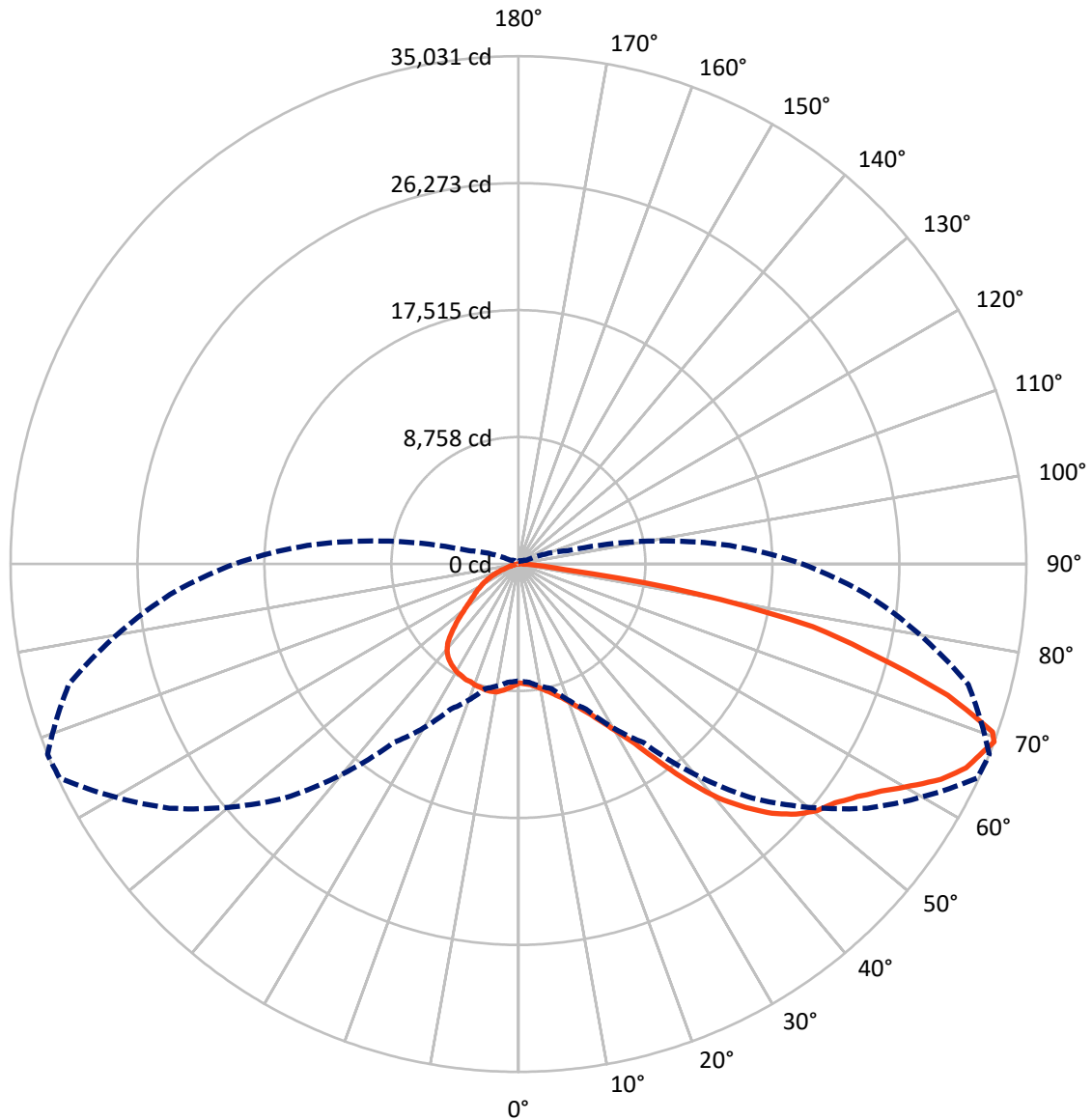
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.2 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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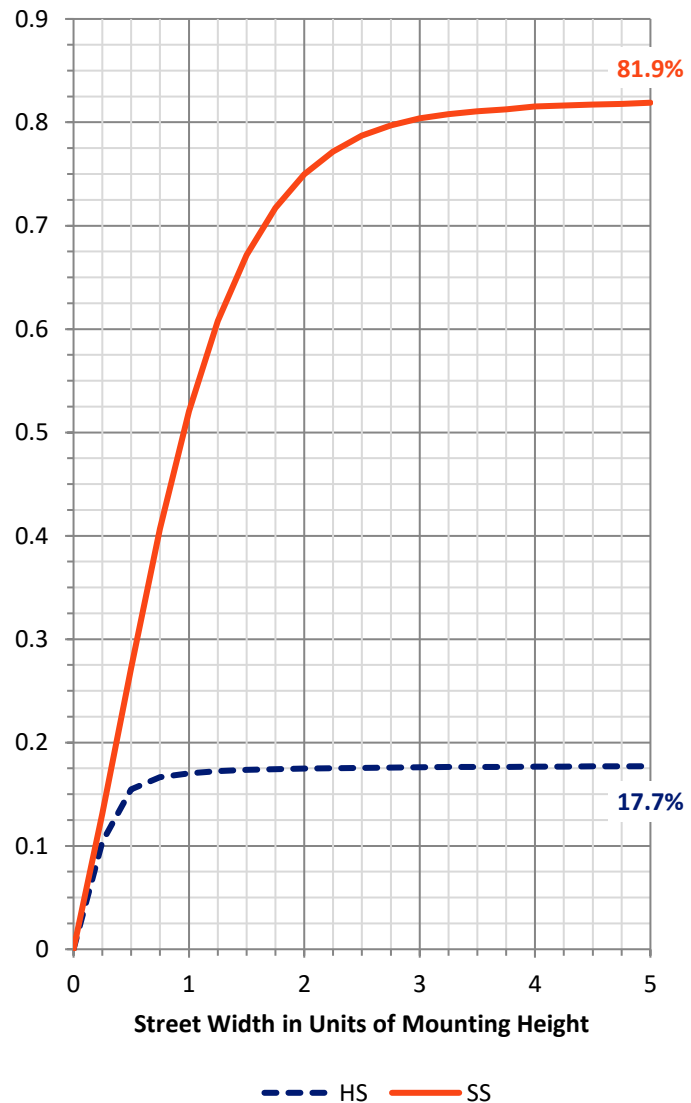
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10129.7	0.0	10129.7
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	46314.3	0.0	46314.3
	% Fixture	82.1	0.0	82.1
Total	Lumens	56444.0	0.0	56444.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	824.5	1.5
10°-20°	2587.3	4.6
20°-30°	4422.8	7.8
30°-40°	6815.0	12.1
40°-50°	9779.8	17.3
50°-60°	11770.4	20.9
60°-70°	12352.0	21.9
70°-80°	7155.9	12.7
80°-90°	736.3	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	56444.0	100.0
0°-180°	56444.0	100.0



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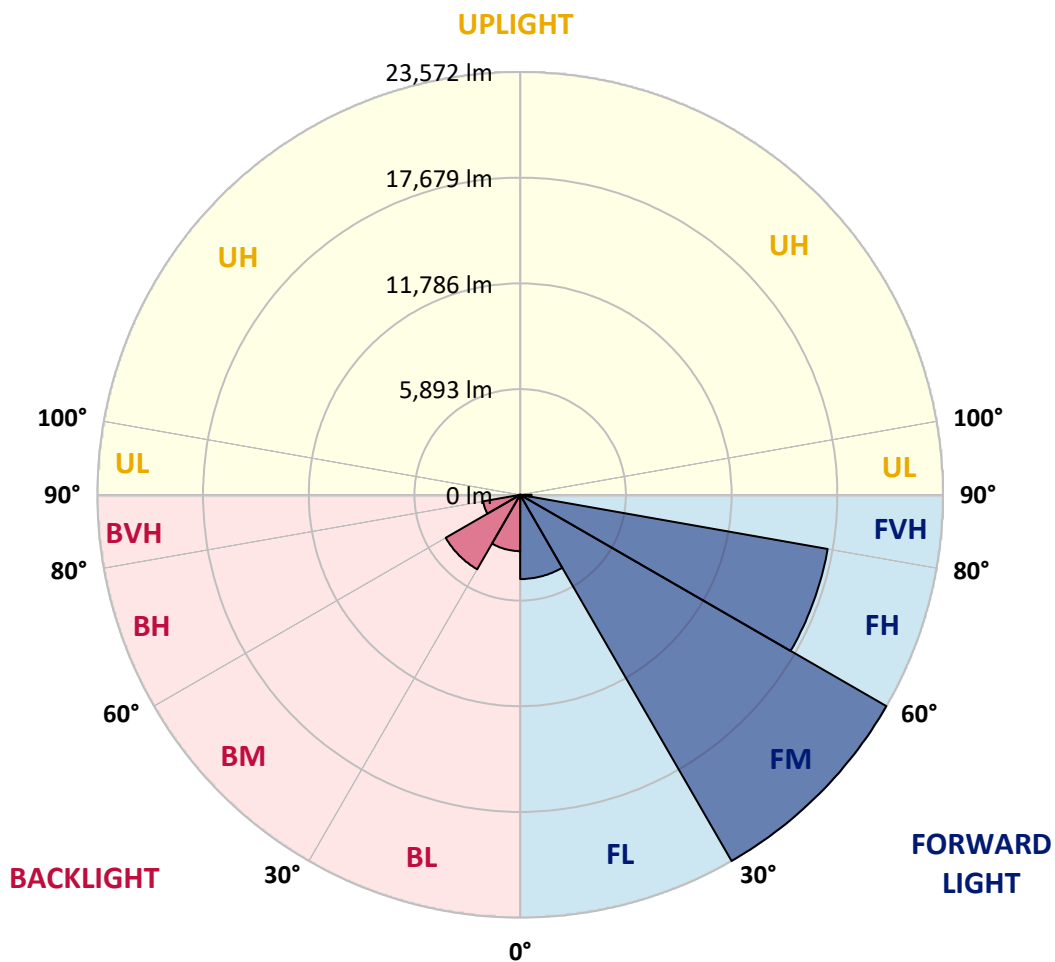
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4695.9	8.3			
FM	(30°-60°)	23571.8	41.8			
FH	(60°-80°)	17406.7	30.8			G5
FVH	(80°-90°)	639.9	1.1			G4/750
BL	(0°-30°)	3138.7	5.6	B4/5000		
BM	(30°-60°)	4793.4	8.5	B3/5000		
BH	(60°-80°)	2101.2	3.7	B3/2500		G3/2500
BVH	(80°-90°)	96.4	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1
2.5°	8302.0	8235.5	8243.3	8296.1	8139.7	8206.2	8165.1	8251.1	8264.8	8223.8	8260.9
5°	8466.3	8409.6	8407.6	8460.4	8286.3	8337.2	8272.7	8331.3	8348.9	8305.9	8370.4
7.5°	8785.1	8724.4	8712.7	8765.5	8544.5	8560.1	8472.1	8501.5	8517.1	8458.4	8523.0
10°	9242.7	9176.2	9133.2	9162.5	8914.1	8875.0	8724.4	8720.5	8744.0	8663.8	8767.4
12.5°	9755.1	9676.9	9614.3	9620.1	9336.6	9270.1	9070.6	9000.2	9015.8	8908.3	9033.4
15°	10312.5	10199.0	10140.4	10142.3	9823.5	9712.1	9455.9	9340.5	9330.7	9227.0	9299.4
17.5°	10983.3	10891.4	10817.0	10777.9	10439.6	10218.6	9913.5	9762.9	9708.1	9639.7	9602.5
20°	11771.4	11656.0	11577.8	11564.1	11149.5	10856.1	10451.3	10251.8	10187.3	10130.6	9964.3
22.5°	12649.5	12532.2	12424.6	12407.0	11967.0	11613.0	11069.3	10822.9	10766.2	10701.6	10369.2
25°	13459.2	13445.5	13326.2	13306.7	12882.3	12422.7	11785.1	11470.2	11470.2	11394.0	10883.5
27.5°	14362.7	14382.3	14274.7	14251.3	13852.3	13343.8	12585.0	12283.8	12346.4	12209.5	11530.9
30°	15315.2	15274.1	15244.8	15270.2	14900.6	14362.7	13572.6	13318.4	13416.2	13259.7	12399.2
32.5°	16167.9	16136.6	16156.1	16253.9	15987.9	15491.2	14812.6	14654.1	14748.0	14845.8	13955.9
35°	16842.6	16776.1	17022.5	17237.6	17161.4	16690.0	16144.4	16478.8	16737.0	17182.9	16250.0
37.5°	17437.1	17388.2	17687.4	18127.5	18223.3	17961.2	17793.1	18725.9	19021.2	19621.6	18262.4
40°	17734.4	17724.6	18092.3	18665.3	19054.5	19224.6	19519.9	20791.2	21221.4	21385.7	19793.7
42.5°	17638.6	17669.8	18319.1	19203.1	19832.9	20562.3	21156.9	22555.2	22950.3	22815.3	21135.4
45°	17370.6	17386.3	18045.3	19424.1	20507.6	21937.2	22731.2	24190.2	24540.3	24065.0	22203.2
47.5°	16999.0	17004.9	17701.1	19271.6	21059.1	23181.0	24088.5	25496.6	25780.2	25109.4	22971.8
50°	16496.4	16506.2	17337.4	19079.9	21534.3	24200.0	25150.4	26509.7	26728.7	25850.6	23636.7
52.5°	15860.8	15946.9	16856.3	18772.9	21831.6	24923.6	25954.2	27252.8	27360.4	26736.5	24225.4
55°	15127.4	15217.4	16244.1	18356.3	21947.0	25334.3	26517.5	28168.1	28340.2	27726.1	24704.5
57.5°	14259.1	14382.3	15463.8	17679.6	21677.1	25506.4	27090.5	29298.5	29531.2	28760.7	25197.4
60°	13251.9	13404.4	14542.7	16834.8	21053.2	25688.3	28162.2	30814.2	31084.1	29873.5	25627.6
62.5°	12199.7	12297.5	13326.2	15682.8	20053.9	25829.1	29316.1	32681.9	32705.3	30849.4	25866.2
65°	10791.6	10895.3	11816.4	14227.8	18553.8	25381.2	29898.9	33992.2	33921.8	31614.1	25786.0
67.5°	9180.1	9277.9	10030.8	12418.8	16494.5	24125.6	29699.4	34514.4	34561.3	32169.5	25017.4
69°	8061.4	8190.5	8900.4	11043.9	15039.4	22840.7	29365.0	34921.2	35030.7	32118.6	24127.6
70°	7105.1	7271.3	7946.1	9829.4	13807.3	21673.2	28719.6	34690.4	34698.2	31604.3	23308.2
72.5°	4640.9	4742.6	4859.9	6377.6	9933.1	17175.0	25414.5	30765.3	30968.7	28201.3	20378.5
75°	2296.0	2386.0	2824.0	3373.6	5108.3	11505.4	20149.7	25205.2	25590.5	23949.6	16695.9
77.5°	1267.3	1284.9	1439.4	2210.0	2648.0	5202.2	13772.1	20093.0	20767.7	19518.0	11990.5
80°	790.1	786.2	821.4	1028.7	1484.4	2466.2	5816.3	11276.6	12489.2	10191.2	4738.7
82.5°	616.0	604.3	606.3	664.9	627.8	1161.7	2421.2	3283.6	3313.0	2941.4	1844.2
85°	314.9	355.9	422.4	442.0	371.6	631.7	1114.8	1296.6	1327.9	1163.6	960.3
87.5°	105.6	107.6	113.4	111.5	99.7	217.1	412.7	481.1	428.3	242.5	328.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1	8210.1
2.5°	8317.6	8300.0	8335.2	8415.4	8348.9	8409.6	8348.9	8552.3	8528.9	8515.2	8554.3
5°	8433.0	8431.1	8487.8	8616.9	8611.0	8718.6	8659.9	8861.3	8832.0	8828.1	8863.3
7.5°	8589.5	8626.6	8687.3	8820.3	8822.2	8910.2	8843.7	9002.1	8937.6	8922.0	8970.8
10°	8828.1	8837.9	8884.8	8976.7	8847.6	8886.7	8777.2	8902.4	8812.4	8802.7	8875.0
12.5°	9056.9	9070.6	9000.2	8970.8	8804.6	8753.8	8562.1	8628.6	8524.9	8515.2	8550.4
15°	9301.4	9209.4	9041.2	8945.4	8657.9	8474.1	8259.0	8127.9	7950.0	7867.8	7899.1
17.5°	9555.6	9377.6	9062.8	8830.0	8444.8	8176.8	7748.5	7525.6	7261.6	7126.6	7101.2
20°	9833.3	9583.0	9115.6	8771.4	8229.6	7701.6	7179.4	6669.0	6367.8	6228.9	6191.8
22.5°	10146.2	9841.1	9189.9	8575.8	7893.2	7251.8	6369.7	5726.3	5288.2	5153.3	5116.1
25°	10537.4	10130.6	9291.6	8526.9	7570.6	6516.4	5419.3	4689.8	4179.4	3974.0	3931.0
27.5°	11012.6	10529.5	9457.8	8294.2	7003.4	5697.0	4474.7	3635.7	3105.7	2863.2	2810.4
30°	11704.9	11040.0	9569.3	8157.3	6498.8	4846.3	3477.3	2540.5	2037.9	1859.9	1812.9
32.5°	13070.0	11916.1	9796.2	7842.4	5753.7	3856.7	2393.8	1558.7	1206.7	1105.0	1065.9
35°	15098.1	13566.8	10122.8	7468.9	4916.7	2743.9	1421.8	903.5	725.6	688.4	676.7
37.5°	16946.2	15195.9	10754.5	6893.9	3817.5	1687.8	823.4	578.9	533.9	539.8	539.8
40°	18340.7	16406.5	11491.8	6135.1	2589.4	946.6	565.2	481.1	490.9	492.8	490.9
42.5°	19647.1	17515.3	11847.7	5298.0	1500.0	627.8	490.9	447.9	455.7	449.8	445.9
45°	20673.8	18309.4	11953.3	4171.5	821.4	561.3	461.5	416.6	412.7	416.6	420.5
47.5°	21340.7	18794.4	11712.7	3193.7	620.0	522.2	443.9	395.1	385.3	412.7	410.7
50°	21835.5	19126.8	10779.9	2429.0	604.3	488.9	422.4	369.6	373.5	406.8	402.9
52.5°	22195.4	19212.9	9757.0	1947.9	576.9	465.5	402.9	357.9	354.0	379.4	381.4
55°	22480.9	18982.1	9119.5	1533.3	553.5	442.0	387.2	346.2	326.6	334.4	332.5
57.5°	22658.9	18718.1	8392.0	1279.0	532.0	416.6	365.7	314.9	285.5	287.5	285.5
60°	22619.7	18542.1	7556.9	1048.3	504.6	393.1	336.4	281.6	252.3	244.5	244.5
62.5°	22541.5	18180.3	6694.4	913.3	481.1	385.3	301.2	256.2	234.7	226.9	226.9
65°	22009.6	17317.8	5540.5	782.3	457.6	363.8	281.6	246.4	221.0	213.2	213.2
67.5°	20689.5	15892.1	4290.8	680.6	440.0	328.6	275.8	240.6	213.2	203.4	203.4
69°	19574.7	14624.8	3524.2	625.8	422.4	312.9	275.8	242.5	209.3	197.5	197.5
70°	18704.4	13629.3	2916.0	592.6	404.8	303.1	275.8	244.5	207.3	193.6	191.7
72.5°	16050.5	10641.0	1619.3	502.6	336.4	275.8	269.9	246.4	197.5	178.0	176.0
75°	12315.1	7480.6	964.2	424.4	283.6	252.3	256.2	236.6	181.9	160.4	160.4
77.5°	7695.7	3436.2	717.7	332.5	230.8	219.0	223.0	209.3	164.3	146.7	146.7
80°	2628.5	1550.9	541.7	256.2	166.2	170.1	183.8	176.0	146.7	133.0	131.0
82.5°	1439.4	1009.1	383.3	178.0	115.4	140.8	140.8	142.8	127.1	117.3	115.4
85°	782.3	526.1	236.6	107.6	82.1	103.7	99.7	107.6	103.7	95.8	93.9
87.5°	271.8	179.9	78.2	39.1	33.2	35.2	41.1	54.8	52.8	54.8	56.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)